

President Roy Davis, WK4Y  
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Newsletter Editor Tom Ogburn, N4ZJ

Devoted To Amateur Radio Contesting And DXing From 160 Meters To Microwaves

News And Views Published For Members And Friends Of The Central Virginia Contest Club - March, 2004 Issue

## Prez' promotes pending post pasta presentation

- De Roy Davis, WK4Y

**H**ello, I hope everyone is well and I look forward to seeing each of you at the March meeting. This month nominations for new club officers will be made and election of officers will be held at the April meeting. New officers will assume office at the end of the April meeting.

Our program for this month will be - Vertical Antennas, (Fact, Fiction, and Opinions), presented by Mike Baker, N4LSP. This should be an interesting subject and good information for those interested in erecting verticals.

A big thank you is in order to N4DEN's Brother In Law, for making repairs to the fiber optic line at the Cluster site. Also, to Dennis for all his time and effort that he puts into keeping the W4ML Cluster up and running.

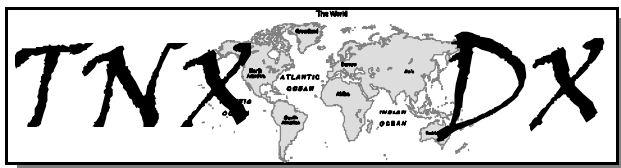
Congratulations are in order for Bob, W4DR. For the 4th straight year Bob has won the Desoto Cup. This is a most prestigious award, and to win it 4 times in succession is outstanding. Also congratulations to K4JA and W4MYA in their recent contest standings.

For those of you that would like to meet together for dinner prior to the meeting, Nick's Roman Terrace, Westland Shopping Center, is the place. Dinner time as usual, 5:30 P.M. Meeting time 7:00 P.M. at the Henrico Doctors Hospital, Parham Road Campus, in the dining room.

I hope to see as many of you as possible.

73,

Roy - WK4Y



by W4TNX

**A**s of 2/23/2004, OPDX reported 235 active DX countries for the month. This total included 3A, JD/M, JD/O, VP8/H, VP8/O, YA & YI. All of these stations are good DX and should be worked if you need them. If you don't need them, but feel your antennas/rigs need checking out, work them again - (not "hogging DX", just checking the rig/antennas!).

Surprise - the ARRL DX CW weekend actually was

decent, considering low SFI levels around 100. I wasn't able to play much, but the short time I did, the propagation was reasonable and the noise floor was low. Also, there was quite a bit of activity. I noticed that many of the M/M stations had 70 or more multipliers on 160M.

Pat Wilson (W4PW) is sponsoring the Virginia Club plaque for the Va. QSO Party. It's right around the corner, March 20 from 1800 UTC through 0200 UTC March 22. Is there any interest out there in getting the award back from the LARG this year?

The PVRC has posted running "5 Million" contest totals through the ARRL 10M Contest this year, with W4MYA (Bob) leading the pack at 56.9M. Other CVCC members include: K4JA 22.6M, W4TNX 20.4M, W3BP 15.6M, W4HJ 13.9M, WK4Y 12.4M, W4DR 10.9M &

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W4HZ 9.8M.

### **Frostfest 2004:**

Frostfest had a great turnout this year, although it was the weekend of the ARRL DX CW contest (bad choice IMHO!). I saw many friends from around the state and quite a few of the CVCC crowd. I don't know if it was the date change or the nice weather, but something brought people out of the woodwork!

### **Recent Contest Activity by Members:**

ARRL 160M:

W4MYA - .32M

W3BP - .18M

CQ 160 CW SOHP:

W4MYA - .58M

K4JA - .38M (K4MA)

WK4Y - .17M

ARRL DX CW M/2:

K4JA – 12.8M (Note that as I write this, the highest U.S. M/M score posted on is 13.7M!)

### **DXploits by Members:**

W4TNX: Received my 3CØV 15M SSB QSL for a new mode country. That makes a “pile” of two QSLs for my 2004 DXCC submittal later this year.

### **Needed DX:**

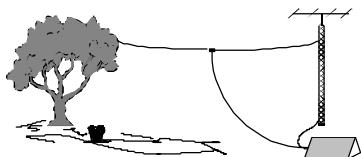
Send me your pet DX needs and I will print them here for a possible “one-ringer” at some future date.

W4DR: JT1CO on 160M & ZD7 on 6M

W4TNX: 7O, BS7, FR/G, P5, VU4 & VU7

Will be looking for all of you in the DX pile-ups and the contests.

73, John



# **DXPEDITION INFO**

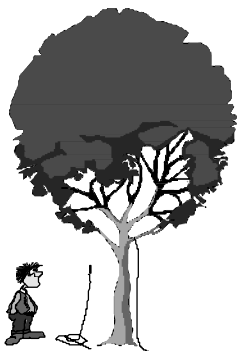
**INFORMATION GATHERED FROM MANY DIFFERENT SOURCES**

<u>Dates</u>	<u>DXCC</u>	<u>Callsign</u>	<u>OSL Info</u>	<u>More Info</u>
03/01/04	03/30/04 Aruba	P4ØA	WD9DZV	By KK9A; 160-10m; CW SSB; QRV for ARRL DX SSB + WPX SSB
03/01/04	03/12/04 Cambodia	XU7AJV/TZG	ON4AJV	By ON4AJT ON6TZG as XU7AJV and XU7TZG
03/01/04	03/08/04 East Kiribati	T32I/T32BI	Home Call Direct	By KH6GMP (T32I) KH6DFW (T32BI); SSB RTTY also in ARRL DX Phone
03/01/04	03/14/04 Norfolk Island	VK9N	DL7AFS	By DL7AFS DJ7ZG; 80-6m <a href="http://www.qsl.net/dl7afs/Index_VK9.html">http://www.qsl.net/dl7afs/Index_VK9.html</a>
03/01/04	03/06/04 Tanzania	5H1BP	HB9BXE	By HB9BXE from the mainland + Zanibar Is (AF-032); 80-10m
03/02/04	03/09/04 Galapagos	HD8	NE8Z	By HC1HC as HC1HC/HD8; 160-10m; SSB, some CW; QRV in ARRL DX Phone as HD8A
03/02/04	03/10/04 Honduras	HR5/OH3JF	OH3OJ	
03/03/04	03/20/04 Revilla Gigedo	XF4IH	XE1IH	By Mexican group from Socorro Is (NA-030); 160-6m <a href="http://xf4ih.xedx.net/index1.html">http://xf4ih.xedx.net/index1.html</a>
03/03/04	03/29/04 Tonga	A35/VARIOUS	Homecall(s)	By DH3WO DL5DAN DJ2HD as A35DH A35DA A35DJ from Fafa Is (OC-049)
03/04/04	03/18/04 Madeira	CT3/HOMECALL	Homecall(s)	By DL3KWR DL3KWF as CT3/homecall fm AF-014
03/04/04	03/20/04 Maldives	8Q7BA	DL5SBA	By DL5SBA. Casual operation
03/06/04	03/13/04 Togo	5V7C	F5TVG	By French group. 160 - 6M <a href="http://5v7c.free.fr/les_newsleng.htm">http://5v7c.free.fr/les_newsleng.htm</a>
03/06/04	03/07/04 West Malaysia	9M2/G3TMA	See Info	By G3TMA as 9M2/G3TMA fm Pulau Ketam(AS-074); mainly CW; QSL: Ian Buffham, Bekay Court, Lorong Enau, 55000 Kuala Lumpur, Malaysia
03/08/04	03/15/04 Brunei	V8JIM	G3SWH	By International group
03/09/04	03/27/04 Cuba	CO/TBD	IØSNY	By IØSNY; focus on 17 12 6m
03/10/04	03/22/04 Bermuda	VP9/MØCNP	MØCNP	From NA-005;
03/10/04	03/17/04 Jersey	MJ/HOMECALL	Homecall(s)	By K8PT K3PLV as MJ/homecall; HF; SSB CW RTTY
03/11/04	03/18/04 Dominican Republic	HI9/PA3GIO	Homecall(s)	By PA3GIO as PA3GIO/HI9 fm NA-096; 80-10m <a href="http://www.pa3gio.nl/HI9/">http://www.pa3gio.nl/HI9/</a>
03/13/04	03/20/04 Belize	V31AD	TBA	By US group <a href="http://www.dxpileup.net/">http://www.dxpileup.net/</a>
03/13/04	03/21/04 Swaziland	3DA0	TBA	By K5LBU + 3 others; 160-6m; SSB CW PSK RTTY

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03/13/04	03/14/04	West Malaysia	9M2	See Info	By G3TMA as 9M2/G3TMA (See other info - same call)
03/14/04	03/19/04	Virgin Islands	KP2	W6DXO	By W6DXO as KP2/W6DXO fm St John (NA-106); 17 12 10m; SSB PSK
03/16/04	03/22/04	San Marino	T7ØA	See Info	By N2WB W4WX; HF; CW SSB RTTY; QSL: ARRSR Radio Club, PO Box 77, 47890 San Marino, Republic of San Marino - Italy
03/17/04	03/25/04	Franz Josef Land	R1FJ	DL6ZFG	By RD3AF RN3AZ RU3AV RZ3DU UA3DX UA3AKO
03/18/04	04/14/04	Rodriguez Island	3B9C	TBA	By large multinational team <a href="http://www.fsdxa.com/3b9c/">http://www.fsdxa.com/3b9c/</a>
03/22/04	04/04/04	Bhutan	A52PRO	W4PRO	By W4PRO; QRV for CQWW WPX SSB
03/22/04	03/27/04	Sardinia	ISØ/HOMECALL	TBA	By N2WB W4WX as IS0/homecall
03/25/04	04/10/04	American Samoa	KH8	DL2MDZ	By DL1VKE DF2SS
03/25/04	03/29/04	Guernsey	MU5RIC/P	M5RIC	By M5RIC fm EU-114; QRV in WPX SSB contest as MU2Z <a href="http://www.qsl.net/m5ric/">http://www.qsl.net/m5ric/</a>
03/29/04	04/07/04	Gambia	C56JJ	PA9JJ	By PA9JJ fm Kololi <a href="http://www.qrz.com/c56jj/">http://www.qrz.com/c56jj/</a>
04/03/04	04/18/04	Martinique	TO7HAM	FM5AN	By Radioclub de Martinique
04/04/04	04/16/04	Banaba Island	T33C	F5CWU	By international team fm OC-018; 160-6m <a href="http://www.dx-pedition.de/banaba2004/">http://www.dx-pedition.de/banaba2004/</a>
04/04/04	04/10/04	Svalbard	JW/F8DVD	F8DVD	By F8DVD as JW/F8DVD from Longyearbyen
04/07/04	04/24/04	Belize	V31RG	K4VU	By K4VU K0LAA; 160-6m; CW SSB RTTY
04/09/04	04/11/04	Cameroon	TJ		By F6BUM fm Mondoleh Is
04/10/04	04/14/04	Nepal	9N	W4PRO	By W4PRO
04/18/04	05/01/04	Malawi	7Q7	G3LQP	By British group <a href="http://www.malawi.digital-crocus.com/">http://www.malawi.digital-crocus.com/</a>
04/23/04	05/05/04	Greenland	OX/HOMECALL	Homecall(s)	By DL2SWW DL2VFR as OX/homecall fm Maniitsoq Is (NA-220) <a href="http://www.iota-post.de/01/ox/ox.html">http://www.iota-post.de/01/ox/ox.html</a>
05/01/04	05/21/04	Mauritius	3B8	DL3LBP	By DL3LBP fm AF-049; 40-10m; SSB CW



# 'Tenna Topics

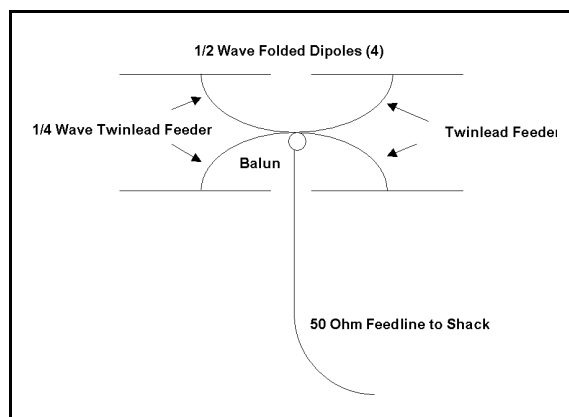
-de Tom Ogburn, N4ZJ

A long time ago I did a series of articles on stacking dipole antennas. I showed that good gain could be obtained by stacking dipoles horizontally, vertically and close spaced (fed 180 degrees out of phase). All of those antennas I have had up. I never got around to writing about the design of the 10 meter killer wire antenna I mentioned, so here we go.

This antenna combines both vertically and horizontally stacked dipoles in an "X" array, so named because the dipoles and feedlines resemble an "X". When I was playing around on the computer and "discovered" this concept using the combination of vertically and horizontally spaced dipoles, I realized it was vaguely

familiar. It worried the heck out of me until I came across the antenna in an old Radio Handbook I own, edited by Bill Orr, W6SAI in the late 60s. That was where I must have seen the concept originally and filed it into my memory.

The X array consists of 4 dipoles, 2 over 2 and all fed in phase. This arrangement produces broadside gain approximately equivalent to a 4 element NBS Yagi! - and (depending on how you look at it) it has the advantage of being bi-directional. Now, here's the magical part. If the dipoles are folded dipoles made out of 300 ohm twinlead, and they are fed with 300 ohm twinlead, the impedance at the combined feedpoint is about 75 ohms ( $300/4 = 75$  ohms). It matches just fine to 50 ohm coax. I fed mine using a multi-turn loop of coax at the feedpoint as a balun. Now, let's take a look at the design and patterns. Figure 1 is the basic antenna structure. The vertical spacing seems to be best at 5/8 wavelength as it was in the 2 vertically stacked dipole project I wrote about earlier. The horizontal spacing is subject to your pattern desires. A 1/2 wavelength spacing gives the most gain, but with more narrowed 3db horizontal beamwidth and increased sidelobes. Narrowing the spacing to about 1/8 wavelength results in less gain, but with a cleaner and broader pattern. This antenna has a large capture area and receives very well (horizontal and vertical patterns shown below). The folded dipoles I used were 16 ft 3 in each, and the vertical spacing was 20 ft. The spacing between adjacent horizontal elements was 4 feet.



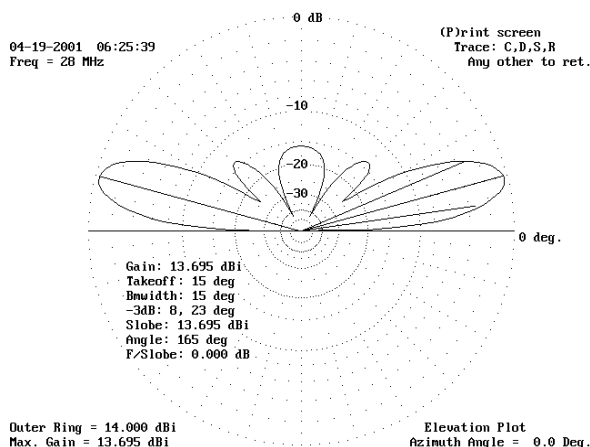
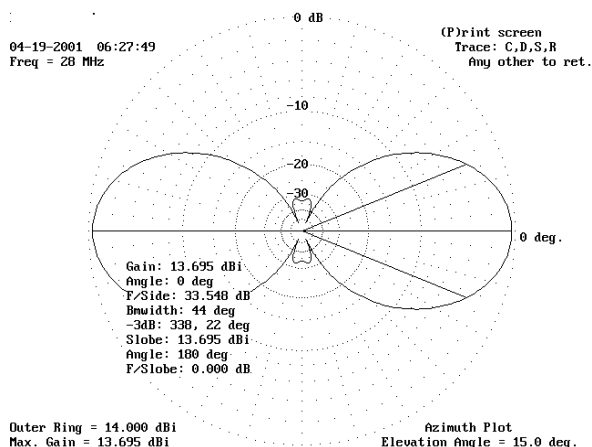
There is a fragility problem with this antenna. The twinlead element connections are subject to breaking with relatively mild stress. I've fixed mine a number of times, due to the mechanical strain caused by wind and errant tree limbs. It, along with all of my other wires, came down in the hurricane. This summer, I'm going to reconstruct the antenna using 450 ohm heavy duty ladder line. The phased array should come out to a combined impedance near 112 ohms, and should match fine with a quarter wave 75 ohm matching section. I'll report on the results later.

So how well does it work? The first weekend I put it up, I worked a ton of stations through pileups to the mid-east and Europe. In the ARRL 10 meter contest that year, I used this X antenna NE/SW, a vertical 2 dipole stack NW/SE another and E/W. I was very delighted to make 2010 contacts, 236 mults and 1.25 mil points, phone and cw. This was at least as good as, if not better than, my efforts in the 1980s using a tribander and a 4 element monobander at my old QTH.

I hope this series on dipole stacking was helpful and not too boring.

Stay tuned, and have fun slinging those wires over limbs!

Tom



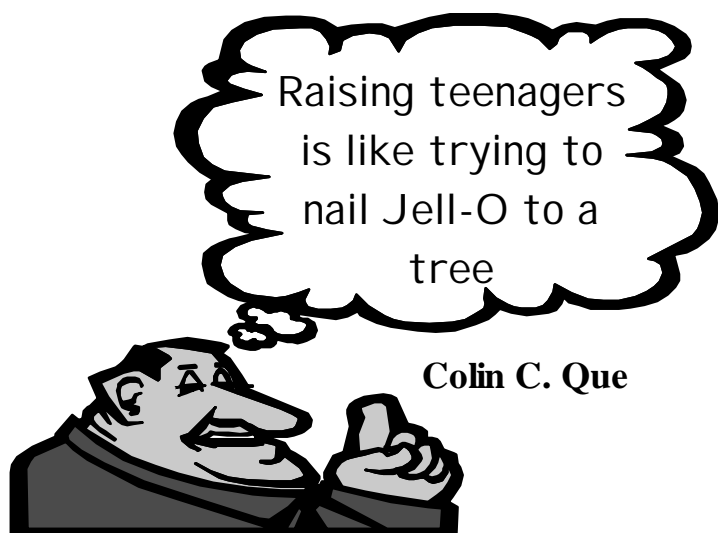
# QRZ Contests!

- Mar-06 - Mar-07 ARRL DX Contest - Phone (<http://www.arrl.org/contests/>)  
0000Z Sat (Fri Night) to 2400Z Sun
- Mar-07 DARC 10-meter Digital Contest ([http://www.shindengen.de/dlcj/darc\\_10m\\_contest.html](http://www.shindengen.de/dlcj/darc_10m_contest.html))  
1100Z to 1700Z Sun
- Mar-13 - Mar-14 Oklahoma QSO Party (<http://www.okdxa.org/>)  
1400Z Sat to 0200Z Sun and 0800Z to 2000Z Sun
- Mar-13 - Mar-14 RSGB Commonwealth Contest (<http://www.rsgb.org.uk>)  
1000Z Sat to 1000Z Sun
- Mar-14 North American Sprint - RTTY (<http://www.ncjweb.com/naqprules.html>)  
0000Z to 0400Z Sun
- Mar-14 UBA Spring Contest - CW (<http://www.uba.be/>)  
0700Z to 1100Z Sun
- Mar-14 - Mar-15 Wisconsin QSO Party (<http://www.warac.org/wqp/wqp.htm>)  
1800Z Sun to 0100Z Mon (Sun Night Local)
- Mar-20 - Mar-22 BARTG Spring RTTY Contest (<http://www.bartg.demon.co.uk/>)  
0200Z Sat to 0200Z Monday
- Mar-20 - Mar-21 Russian DX Contest (<http://rdxc.narod.ru/news.html>)  
1200Z Sat to 1200Z Sun
- Mar-20 - Mar-22 Virginia QSO Party (<http://www.qsl.net/sterling/uf1.htm>)  
1800Z ST TO 0200z Mon (Sun night Local)
- Mar-27 - Mar-28 CQWW WPX Contest - Phone (<http://home.woh.rr.com/wpx/>)  
0000Z Sat (Fri Night Local) to 2400Z Sun
- Apr-03 - Apr-04 EA RTTY Contest  
1600Z Sat to 1600Z Sun
- Apr-03 - Apr-04 Missouri QSO Party (<http://www.qsl.net/w0ma/contests.htm>)  
1800Z Sat to 0500Z Sun and 1800Z to 2400Z Sun
- Apr-03 - Apr-04 QCWA QSO Party (<http://www.qcwa.org/qsoparty.htm>)  
1800Z Sat to 1800Z Sun
- Apr-03 - Apr-04 SP DX Contest (<http://www.contest.spdxc.org.pl/>)  
1500Z Sat to 1500Z Sun
- Apr-05 144 Mhz Spring Sprint  
1900 to 2300 Local time
- Apr-10 EU Spring Sprint SSB  
1500Z to 1859Z Sat
- Apr-10 - Apr-11 Georgia QSO Party (<http://secc.contesting.com/page3.html>)  
1800Z Sat to 0359Z Sun and 1400Z to 2359Z Sun

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- Apr-11 UBA Spring Contest - SSB (<http://www.uba.be/>)  
0600Z to 1000Z Sun
- Apr-13 222 Mhz Spring Sprint  
1900 to 2300 Local time
- Apr-17 - Holyland DX Contest (<http://www.qrz.co.il/4xradio.php?pid=99>)  
0000Z to 2359Z
- Apr-17 - Apr-18 Michigan QSO Party (<http://www.miqp.org/>)  
1600Z Sat to 0400Z Sun
- Apr-17 - Apr-18 Ontario QSO Party (<http://www.odxa.on.ca/oqphome.html>)  
1800Z Sat to 1800Z Sun
- Apr-17 - Apr-18 YU DX Contest (<http://solair.eunet.yu/~yu1ab/awards/rules.htm>)  
1200Z Sat to 1200Z Sun
- Apr-21 432 Mhz Spring Sprint  
1900 to 2300 Local time
- Apr-24 - Apr-25 Florida QSO Party (<http://www.qsl.net/fqp/>)  
1600Z Sat to 0159Z Sun and 1200Z to 2159Z Sun
- Apr-24 - Apr-25 HB9 (Helvetia) Contest (<http://www.uska.ch/html/en/contest/reglement2002e.pdf>)  
1300Z sat to 1300Z Sun
- Apr-24 - Apr-25 Kentucky QSO Party (<http://www.critterbob.net/BARS/kyqsopartyrules.html>)  
1600Z Sat to 0400Z Sun
- Apr-24 - Apr-25 Nebraska QSO Party (<http://www.qsl.net/hdxa/neqso/neqso.htm>)  
1700Z Sat to 1700Z Sun
- Apr-24 - Apr-25 SP DX RTTY Contest (<http://home.online.no/~janalme/htmlrules/spdxrtty.html>)  
1200Z sat to 1200Z Sun
- May-01 May-02 2 GHZ and Up Contest  
0600 Sat Local to 2400 Local Sun



599 VA is published monthly by the Central Virginia Contest Club, and is edited by Tom Ogburn, N4ZJ.

If you would like to get in touch with one of the club officers, please contact:

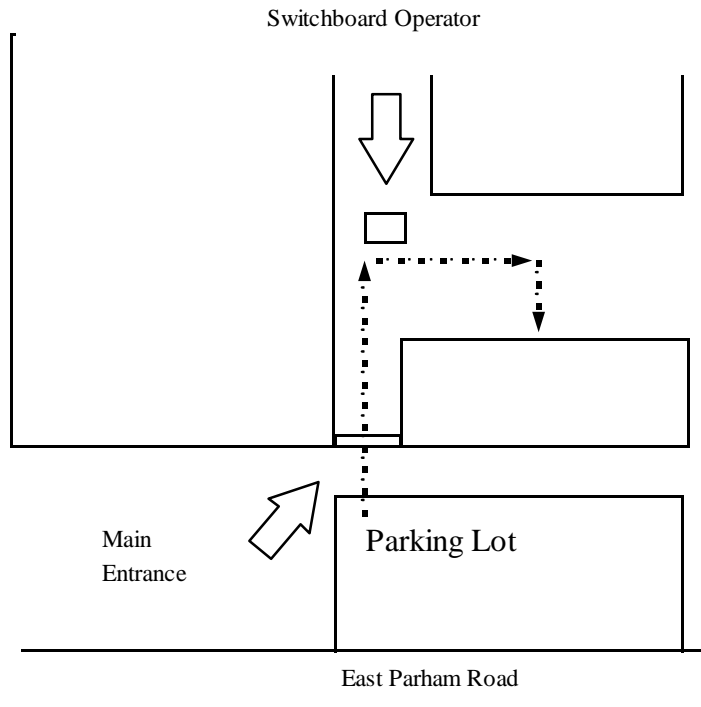
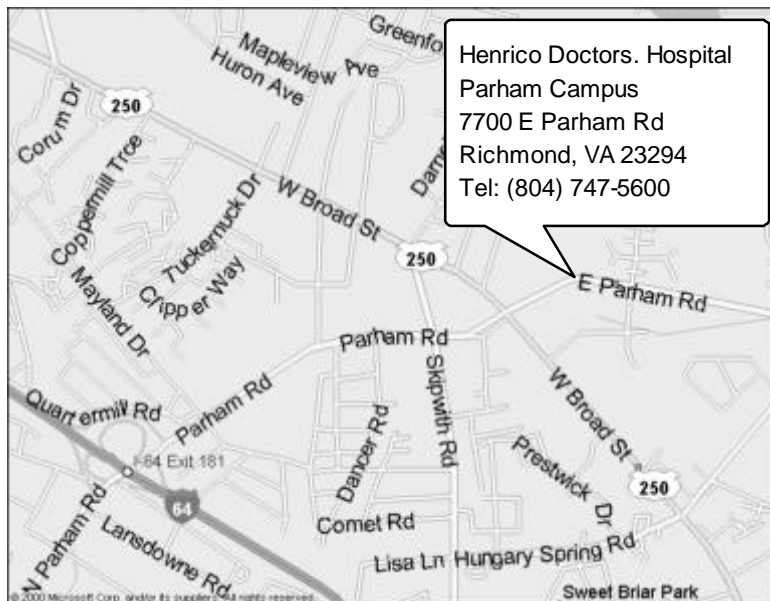
President , Roy Davis, WK4Y - 741-9315

Secretary, Marie Long, K4KML - 795-2624

Treasurer, Bob Ladd, NK4H - 750-1015

The deadline for submission of news or articles for the April newsletter is April 4, 2004. N4ZJ can be reached at 320-4514 or [togburn@wwbt.com](mailto:togburn@wwbt.com)

# New Meeting Location



*Henrico Doctor's Hospital, Parham Campus, 7700 E Parham Road. Park in parking lot, come in main entrance and go to switchboard operator station. Ask for directions to the cafeteria and meeting room, and mention that you are with CVCC. The cafeteria is down the hall to the right of the operators station. The main phone number is 804-747-5600.*



## Central Virginia Contest Club

Tom Ogburn  
3211 Whitehorse Road

### THIS MONTH

599 VA

- ? TNXellent DX Column
- ? Dxpeditons/Events
- ? Meeting March 9 at Henrico Doctors Parham
- ? 'Tenna Topics—10 Meter Wire Array